

**Student questions: Kim Cobb colloquium on “Climate Resilience for the 21st century - Smart Sea Level Sensors”**

4/16/20

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STUDENT 1

Question 1: Relating to a current situation, it is known that climate change could take years and years to “reverse” or “heal”, but scientists are already noticing substantial changes such as absence of smog and presence of harmful gases in lower parts of the atmosphere, and the cleanliness of rivers and harbors in various countries. Do you think this demo of what could be may help steer people in the right direction to take action on climate change?

Question 2: How long would we have to practice conscientiousness of the environment formally in order to start to see a lowering of sea levels or perhaps a plateau of sea levels?

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STUDENT 2

Question 1: What is your theory about the 2018 Georgia flooding you mentioned?

Question 2: What geographic characteristics make Southeastern United States so much more prone to flooding risks?

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STUDENT 3

Question 1: How often are community response plans updated as climate matters change?

Question 2: How long do you think the long-term risks of coastal flooding will be ignored by climate deniers?

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STUDENT 4

Question 1: What are the main sources of uncertainty in the models for sea-level rise?

Question 2: What is the best way you've found for communicating more "controversial issues" in science such as climate change?

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STUDENT 5

Question 1: What is the margin of error for sea level rise estimates?

Question 2: Given the effects we have been seeing lately with social distancing, ie less smog, animals returning to areas they havent been seen in for a long time, etc, can we begin to formulate a more accurate estimate for how much mankind has affected the climate?

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STUDENT 6

Question 1: What are the challenges of balancing research focus on mitigation and damage control of rising sea levels versus prevention?

Question 2: Does increased seawater flooding severely affect the ecology/biodiversity of coastlines?

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STUDENT 7

Question 1: Is sea level rise preventable at all at this point, or is the best case scenario of total global effort only going to be able to minimize the effects?

Question 2: How big of a deal is interested community/governmental involvement and backing in terms of climate resilience efforts and how do they impact effectiveness and awareness?

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**STUDENT 8**

Question 1: Do you think Elon Musk's underground tunnel system would hurt or help our carbon footprint?

Question 2: From your experience, how do you explain global warming to climate deniers who don't believe in what you're doing?

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**STUDENT 9**

Question 1: What are some of the more crucial roles in this kind of research (hydrologists, civil engineers etc)?

Question 2: How does your research team react to the data collected in terms of city and coastline preservation?

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**STUDENT 10**

Question 1: How would you go about identifying metrics for quantifying different levels of mitigation that you feel can be the easiest and most confidently conveyed to the general public?

Question 2: Are you also modeling subsurface exchanges and subsequent effects on groundwater quality due to sea level rise?

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**STUDENT 11**

Question 1: Are the events happening along the east coasts similar in cause and effect to the events happening along the shores of the great lakes?

Question 2: What can those in AZ do to help with these issues other than not flying?

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**STUDENT 12**

Question 1: Are more sensors placed in other countries necessary for more accurate data or are the sensors in Georgia enough to tell the whole story?

Question 2: Do you practice methods other than sea level rising sensors? If yes what are they and is it as accurate as the sea level data?

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**STUDENT 13**

Question 1: How much would Earth's surface area by land decrease if there was a 4 ft increase in sea level by 2100?

Question 2: Just like the coral reefs being severely damaged by climate change, what other environments or ecosystems would be in severe danger if climate change continues to increase?

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**STUDENT 14**

Question 1: Is there anything our government can do to help mitigate storm surges, whether that be initiating climate change policies or purchasing smart sea level sensors?

Question 2: If the sea level rises, how do we protect underserved communities?

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**STUDENT 15**

Question 1: Is transdisciplinary the same or similar to demand based research?

Question 2: How do you determine the right number of sensors to have in a given area?

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**STUDENT 16**

Question 1: Is it possible to plant coral in reefs to rejuvenate it, and if so how are in distance should each coral be planted from each other?

Question 2: Does GIS software such as ArcGIS come into play or could be beneficial when it comes to these sea level sensors in being able to possibly measure difference of land changes over time.